

DRAFT

Derelict Vessel Removal Program  
Assessment of Significance

DRAFT

Prepared by:

Michal Rechner  
Derelict Vessel Removal Program Manager

This page intentionally left blank.

**Assessment of Significance**

**The results of each of the seven tests for significance shown below demonstrate implementation of the derelict vessel removal program to be nonsignificant.**

The seven tests for assessing significance used and their results:

- I. Receptor Test: Identifying the presence or absence of certain environmental receptors and then considering the impacts on only those receptors that are potentially affected.  
*Results: No potentially significant effects to identified receptors noted as a result of implementing the derelict vessel removal program.*
- II. Activity Test: Identifying the presence or absence of certain activities and then considering the impacts only of those activities that are likely to affect the above receptors.  
*Results: No potentially significant effects from activities associated with the implementation of the derelict vessel removal program were noted.*
- III. Regulatory Compliance Test: Determining whether the impacts include a threatened violation of any local law, regulation, or requirement respecting the environment. In most cases, these laws and requirements provide threshold tests for compliance. This test covers a wide range of effects including health and safety as well as other regulations protecting air, water, land and ecological resources.  
*Results: Implementation of the derelict vessels removal program:*
  - 1) *Will not impact receptors not currently covered by a compliance program, and*
  - 2) *Will not create noncompliance situations for those that are.*
- IV. Risk/Uncertainty Test: Determining the degree to which the possible effects on the environment are highly uncertain or involve unique or unknown risks. This requirement includes risks resulting from natural hazards and from accidents.  
*Results: Impacts that could occur from the risk-prone situations surrounding the removal of derelict vessels are all in the category of nonsignificance.*
- V. Cumulative Test: Determining whether the action is related to other actions with individually nonsignificant but cumulative significant impacts.  
*Results: Impacts from derelict vessels removal operations will not cause individually nonsignificant impacts to become cumulatively significant impacts.*
- VI. Precedence Test: Determining the degree to which the action might establish a precedent for other actions with significant effects or represents a decision in principle about a future consideration.  
*Results: Implementing the derelict vessel removal program will not establish a precedent or create a decision in principle.*
- VII. Controversy Test: Determining the degree to which the effects on the quality of the human environment are likely to be highly controversial.  
*Results: Effects on the quality of the human environment resulting from the derelict vessel removal program are not likely to be highly controversial.*

**Receptor Test**

The following receptor checklist was derived from the list of elements in the effected environment as shown in WAC 197-11-444, SEPA Procedures.

**Receptor Checklist**

<b>Receptor</b>	<b>Unaffected</b>	<b>Insignificant Affect</b>	<b>Potentially Significant</b>
Natural Environment			
Earth			
Geology	X		
Soils	X		
Topography	X		
Unique physical features	X		
Erosion or accretion	X		
Air			
Air quality	X		
Odor	X		
Climate	X		
Water			
Surface water movement, quantity, quality		X (quality)	
Runoff/absorption	X		
Floods	X		
Ground water movement, quantity, quality	X		
Public water supplies	X		
Plants and Animals			
Habitat for and numbers or diversity of species of plants, fish or other wildlife		X	
Unique species	X		
Fish or wildlife migration routes		X	
Energy and Natural Resources			
Amount required/rate of use/efficiency	X		
Source/availability	X		
Nonrenewable resources	X		
Conservation and renewable resources	X		
Scenic resources	X		
Built Environment			
Environmental Health			
Noise		X	
Risk of explosion		X	
Releases or potential releases to the		X	

environment affecting public health, such as toxic or hazardous materials			
<b>Land and Shoreline Use</b>			
Relationship to existing land use plans and to estimated population	X		
Housing	X		
Light and glare	X		
Aesthetics		X	
Recreation		X	
Historic or cultural preservation	X		
Agricultural crops	X		
<b>Transportation</b>			
Transportation systems	X		
Vehicular traffic	X		
Waterborne, rail, and air traffic		X	
Parking	X		
Movement/circulation of people or goods	X		
Traffic hazards	X		
<b>Public Services or Utilities</b>			
Fire		X	
Police		X	
Schools	X		
Parks or other recreational facilities		X	
Maintenance	X		
Communications	X		
Water/storm water	X		
Sewer/solid waste		X	
Other governmental service or utilities	X		

**Explanation of insignificant effects:**

Surface water movement/quantity/quality: Surface water quality could be impacted in a number of ways. Impacts include increased turbidity and discharges of motor fuels and other toxic or hazardous substances to surface waters. Increased turbidity would be a short-term impact resulting from a disturbance of sediments during removal operations. Once the removal is complete, suspended sediments will settle, reducing turbidity to original levels. The likelihood of a significant discharge to surface waters affect water quality is remote. Substances that could affect water quality if discharged would be removed from

the vessel prior to any removal operation. In some instances, the removal of all hazardous substances is impossible, and it is likely that small amounts of hazardous substances could remain onboard. Even if these small amounts are discharged during the removal of the vessel, the impacts to water quality would be short-term and insignificant. Procedures that will be in place as a requirement for vessel removal will include measures to minimize the effect of possible discharges of motor fuels and other toxic or hazardous substances. With the small amount of discharge likely and these procedures, the impacts are considered insignificant.

Habitat for and numbers or diversity of species of plants, fish or other wildlife: Any affect to this receptor would likely be to habitat. Derelict vessels that have sunk and are resting on the bottom could be located in areas of sensitive habitat. Operations to remove the vessel may have short-term impacts to that habitat since these operations sometimes require chains, straps, or other devices to assist in the lifting of the vessel to be placed underneath it. This could disturb habitat surrounding the vessel but would not likely cause any further negative impacts to the habitat than those already present as a result of the sunken vessel.

Fish or wildlife migration routes: Any impact to this receptor would be short-term, insignificant and would not cause a permanent change in any fish or wildlife migration routes. The greatest likelihood of impact to this receptor would be if removal operations were conducted on vessels located in migration routes during times of migration. This affect can be minimized and possibly avoided by timing work within migration routes so as to not coincide with times of migration.

Noise: Any increases in noise generated as a result of derelict vessel removals would be short-term and insignificant. The majority of removal operations should be completed in one to three days with all work occurring during daylight hours. It is possible that emergency operations could occur after dark but would be very infrequent.

Risk of explosion: Since vessel motors operate on gasoline, diesel, or bunker fuel, the risk of explosion during removal operations does exist. However, it is unlikely that any removal operations would commence without first ascertaining the presence of any explosive materials. Safety procedures would minimize this risk to the point that it is insignificant. The greatest risk would occur during operations to remove the explosive material prior to the removal of the derelict vessel. This would be conducted in most instances by the U.S. Coast Guard.

Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials: Numerous derelict vessels have become a dumping ground for toxic and hazardous materials individuals wish to dispose of. Because of the history of finding these materials on derelict vessels, the risk of a release to the environment does exist. The greatest risk would occur during operations to remove these materials prior to the removal of the derelict vessel. This would also be conducted, in most cases, by the U.S. Coast Guard who has procedures to minimize or contain any possible discharges.

Aesthetics: Aesthetics could be impacted during derelict vessel removal operations by the equipment being used to effect the removal. This impact would be short-term and would result in an ultimately positive impact on aesthetics as the derelict vessels would no longer impact aesthetics once the removal operation is complete.

Recreation: In cases where a derelict vessel is located in an area normally used for recreation, the ability of the public to continue utilizing that area would be impacted. Further impacts would result from equipment being used to remove the derelict vessel. This impact, however, would be short-term and

would conclude when the removal of the derelict vessel was complete. The removal of the derelict vessel would also result in the ability of the public to resume the use of the area for recreational purposes.

Waterborne, rail, and air traffic: Waterborne traffic could be impacted in areas where derelict vessels are located along traditional traffic routes. Equipment being used to remove the derelict vessel could impede waterborne traffic or cause it to find alternate routes. This impact would be greatest in the event a derelict vessel removal operation were to take place along a route used by the Washington State Ferry System. This impact would be short-term as the equipment would no longer impede traffic once the derelict vessel were removed. The ultimate safety of the waterborne traffic route may be improved by the removal of the derelict vessel.

Fire: Fire protection services could be impacted in situations where hazardous or explosive materials were discovered aboard a derelict vessels and the threat of explosion or discharge was high. This impact is considered insignificant because the frequency of finding derelict vessels in this condition is rare and because the U.S. Coast Guard capabilities would also minimize this impact.

Police: Police services could be impacted in situations where hazardous or explosive materials were discovered aboard a derelict vessels and the threat of explosion or discharge was high. This impact is considered insignificant because the frequency of finding derelict vessels in this condition is extremely rare and because the U.S. Coast Guard capabilities would also minimize this impact. Police services could also be required in situations where there is a dispute between the entity taking custody of the vessel and the vessel owner. These situations are normally handled in court so this impact is considered insignificant as well.

Parks or other recreational facilities: In cases where a derelict vessel is located in an area normally used for recreation, the ability of the public to continue utilizing that area would be impacted. Further impacts would result from equipment being used to remove the derelict vessel. This impact, however, would be short-term and would conclude when the removal of the derelict vessel was complete. The removal of the derelict vessel would also result in the ability of the public to resume the use of the area for recreational purposes.

Sewer/solid waste: After removal of the derelict vessel, the entity removing it must dispose of the vessel either by selling it or depositing of it in an approved upland disposal facility. It is not expected that the volume of the vessels being disposed of will have a significant effect on the capacity of the disposal facilities in the state. There is also statutory direction dictating the disposal “be done in an environmentally sound manner and in accordance with all federal, state, and local laws, including the state solid waste disposal provisions provided for in chapter 70.95 RCW.” The impact to solid waste is considered insignificant.

**Explanation of potentially significant effects:**

None exist in this analysis.

**Receptor test result:** *No potentially significant effects to identified receptors noted as a result of implementing the derelict vessel removal program.*

**Activities Test**

The following activities checklist was derived from a list of activities maintained by the Permit Assistance Center regarding activities in Washington State that require some form of regulatory permit or authorization.

**Activities Checklist**

Activity	Requirement	No Effect	Insignificant Effect	Potentially Significant
<b>Air Quality</b>				
Open burning of any kind	Air Quality Permit	X		
Burning forest slash; Starting recreational fires	Burning Permit	X		
Emitting pollutants into the air (business or industry)	Air Contaminant Source Registration	X		
Releasing contaminants into the air (business or industry)	<ul style="list-style-type: none"> <li>• New Source Review</li> <li>• Notice of Construction</li> <li>• Prevention of Significant Deterioration</li> </ul>	X		
Emitting air pollutants from an existing industrial or commercial source that are determined by Ecology to cause an air quality impact	Reasonably Available Control Technology Determination	X		
Emitting more than 100 tons/year of an air pollutant, 10 tons/year of a hazardous air pollutant, and/or 25 tons/year of a combination of hazardous air pollutants.	Air Operating Permits	X		
<b>Aquatic Resources</b>				
Culturing food fish, shellfish, and certain aquatic animals	Aquaculture Registration and Transfer Permit	X		
Commercially harvesting and/or processing molluscan shellfish (clams, oysters, mussels)	Shellfish Operation License and Certificate of Approval	X		

Using state owned aquatic lands (includes harbors, state tidelands, shorelands, and beds of navigable waters)	Aquatic Use Authorization (Aquatic Lease)	X		
Conducting projects authorized by the U.S. Army Corps of Engineers and/or applying for certain federal permits or funding	Coastal Zone Management Certification	X		
Work that uses, diverts, obstructs, or changes the natural flow or bed of state waters	Hydraulic Project Approval		X	
Transporting noxious plants or plant parts	Noxious Aquatic and Emergent Weed Transport Permit	X		
<b>Archaeology and Historic Preservation</b>				
Excavation that alters or removes archaeological resources or Native Indian grave sites	Archaeological Excavation Permit	X		
Receiving federal funding, license, or permit; or undertaking a federal project	Section 106 Review	X		
<b>Hazardous/Dangerous/Solid Waste and Toxic Substances</b>				
Working for a public agency as a solid waste incinerator or landfill facility inspector	Certification of Inspectors of Solid Waste Incinerator and Landfill Facilities	X		
Working as an operator of a solid waste incinerator or landfill facility	Certification of Operators of Incinerator & Landfill Facilities	X		
Hauling tires to and/or owning a tire storage site	Waste Tire Carrier License or Waste Tire Storage Site Owner	X		
Treating, storing, and/or disposing of dangerous waste	Dangerous Waste Permit(s) (Treatment, Storage, Disposal)			

Possessing hazardous substances (businesses)	Emergency Planning and Community Right-To- Know	X		
Generating and/or transporting hazardous waste	Generator and/or Transporter Identification No./Reporting Requirements	X		
Spilling or releasing a hazardous substance	Hazardous Waste Release Notification (Spills or Releases)		X	
Discovering a release, a historical release, or a situation that could cause a release	Hazardous Substance Release Notification Requirement (MTCA)		X	
Conducting an independent remedial action (interim or final)	Reporting Independent Remedial Actions	X		
Installing an underground storage tank and/or having an existing underground tank on site	Underground Storage Tank Notification Requirement	X		
<b>Land Resources</b>				
Forest practices including harvesting, re-foresting, road building, fertilizing, preventing & suppressing diseases & insects, salvaging trees, controlling brush, & applying chemicals	Forest Practices Approval	X		
Surface mining	Reclamation Permit	X		
<b>Livestock</b>				
Conducting a concentrated animal feeding operation that discharges to state/federal waters	Animal Feeding Operations NPDES and Statewide Discharge Permits	X		

Operating a public livestock market	Public Livestock Market License	X		
<b>Pesticides</b>				
Engaging in the business of applying pesticides to land of another	Commercial Pesticide Applicator License	X		
Applying pesticides to the land of another as an employee of an Agriculture licensed commercial applicator	Commercial Pesticide Applicator License	X		
Applying or supervising the non-agricultural use of a restricted use pesticide on land rented or owned by the applicator or applicator's boss	Private Commercial Operators License	X		
Applying a pesticide as a government employee	Public Pesticide Operator License	X		
Applying or supervising the agriculture use of a restricted-use pesticide on land rented or owned by the applicator or applicator's boss	Private Applicator License	X		
<b>Water Quality</b>				
Analyzing data as required by an Ecology permit or process	Requirement to Use an Ecology Accredited Lab	X		
Becoming an Ecology accredited lab	Process for Laboratory Accreditation	X		
Point source discharge of pollutants into surface waters (discharges from industrial facilities or sewage treatment plants; stormwater discharges from industrial sites and construction sites disturbing more than 5 acres)	National Pollutant Discharge Elimination System (NPDES) Permit	X		
Disposal of sanitary sewage through septic tanks and drain fields	On-site Sewage Disposal Permit	X		

Discharging (1) industrial, commercial, or municipal waste to ground water, (2) industrial or commercial wastes to municipal sanitary sewer systems, or (3) using water reclaimed from sewage treatment plants	Waste Discharge Permit	X		
Using water reclaimed from sewage treatment plants	Waste Discharge Permit - Reclaimed Water	X		
Using aquatic herbicides or pesticides to control noxious and non-noxious aquatic plants	Temporary Modification of Water Quality Criteria (Short Term Water Quality Mod)	X		
Being in charge of a domestic wastewater treatment plant or a shift at a plant	Wastewater Plant Operator's Certificate	X		
Applying for a federal license or permit to conduct any activity that might result in a discharge of dredge or fill material into water or wetlands, or excavation in water or wetlands	Water Quality Certification (401)	X		
<b>Water Resources</b>				
Constructing, modifying, or repairing any dam or controlling works for storage of 10 or more acre-feet of water, waste, or mine tailings	Dam Safety Construction Permit	X		
Furnishing water to two or more service connections for human consumption and domestic use	Water System Construction and Operation Approvals (Public Water Approval)	X		
Operating a public water system that has 15 or more services or serves more than 15 people a day for more than sixty days a year	Drinking Water Operating Permit	X		

Constructing a barrier across a stream, channel, or water course, if the barrier will create a reservoir	Reservoir Permit	X		
Withdrawing surface or ground water	Permit to Withdraw or Divert Surface or Ground Water	X		
Changing an existing water right, certificate, or claim	Application for Change of a Water Right	X		
Drilling activities including developing water wells, monitoring wells, and biotech soil borings unless you are drilling on your property or when drilling is conducted by a Washington-certified engineer	Water Well Construction and Operator's License	X		
Operating a waterworks	Waterworks Operator Certification	X		
<b>Wetlands</b>				
Working in wetlands	Sections 404 and 401 permits, Section 10 permit, Shoreline Permit, Hydraulic Project Approval, or local permits		X	
<b>Local Permits</b>				
Constructing permanent buildings or additions to existing facilities	Building Permit	X		
Requesting a permit for an activity that requires a conditional use permit	Conditional Use Permit	X		
Development in a floodplain in an area participating in the National Flood Insurance Program	Floodplain Development Permit	X		

Developing or conducting an activity valued at \$2,500 on or materially interfering with the normal public use of the water or shorelines of the state regardless of cost, and uses constituting a conditional use or variance under the local master program	Shoreline Management Act Permit (Shoreline Permit)	X		
Dividing land for residential or other purposes	Subdivision Approvals	X		
Operating a solid waste facility (landfill, transfer station, recycling, etc.)	Solid Waste (Handling) Permit	X		
<b>Federal Permits</b>				
Locating a structure, excavating, or discharging dredged or fill material; transporting dredged material for ocean dumping	Corps 404 Permit of Corps Section 10 Permit	X		
Constructing a hydroelectric project	Federal Energy Regulatory Commission (FERC) License	X		

**Explanation of insignificant effects:**

Work that uses, diverts, obstructs, or changes the natural flow or bed of state waters: Derelict vessel removal operations, except for those vessels located completely on a beach or an out-of-water structure, will occur in state waters. Potential impacts include increased turbidity and the potential re-suspension of contaminated sediments, impacts to aquatic vegetation and marine life. These impacts will be short-term and very localized making them insignificant.

Spilling or releasing a hazardous substance: Numerous derelict vessels have become a dumping ground for toxic and hazardous materials individuals wish to dispose of. Because of the history of finding these materials on derelict vessels, the risk of a release to the environment does exist. The greatest risk would occur during operations to remove these materials prior to the removal of the derelict vessel itself. This would also be conducted, in most cases, by the U.S. Coast Guard who has procedures to minimize or contain any possible discharges. The amounts of hazardous substances remaining on a derelict vessel during removal are quite small. Along with booming procedures, any spill or release of hazardous substances would be contained, localized and of minimum volume, making them insignificant.

Discovering a release, a historical release, or a situation that could cause a release: If a release, or potential release, is discovered at a derelict vessel site, it would invoke an immediate response from the U.S. Coast Guard and most likely the Washington Department of Ecology Spill Response Team. The operations associated with the removal of derelict vessels is not likely to increase the probability of

discovering a release or a situation that could cause a release. The abandonment of the vessels is the action responsible for those situations.

Working in wetlands: It is possible that a derelict vessel could be located in a wetland. Removal operations would be sensitive to the fragile nature of the wetland, minimizing impacts. Because wetlands are usually not navigable, the likelihood of locating a derelict vessel in a wetland is remote, making the potential impacts insignificant.

**Explanation of potentially significant effects:**

None in this analysis.

<p><b>Activities test result:</b> <i>No potentially significant effects from activities associated with the implementation of the derelict vessel removal program were noted.</i></p>
---

**Regulatory Compliance Test**

Applicable Federal, State, and Local Regulations

<b>Regulation</b>	<b>Not Applicable</b>	<b>Covered by Current Program</b>	<b>Potential Noncompliance</b>
<b>Federal</b>			
National Environmental Policy Act	X		
Rivers and Harbors Act	X		
The Clean Water Act	X		
The Endangered Species Act		X	
Marine Mammal Protection Act		X	
Ocean Dumping Act	X		
<b>State</b>			
State Environmental Policy Act		X	
Growth Management Act	X		
Critical Areas Ordinances	X		
Shoreline Management Act		X	
Shoreline Master Programs		X	
Water Pollution Control Act		X	
Hydraulics Code		X	
Aquatic Lands Act	X		
Clean Air Act	X		
Solid Waste Management		X	

A brief discussion of how each of the applicable regulations shown above is addressed by the program follows.

Endangered Species Act (ESA): ESA does not require permits to ensure compliance. By applying the State Environmental Policy Act on the implementation of the derelict vessel removal program, the requirements of the ESA are being met. Any proposal that would in fact create a taking of an endangered species would require a biological opinion and an incidental take permit from U.S. Fish and Wildlife. Protection of endangered species, both federal and state listed, will be addressed by the hydraulic project approval required by Washington Department of Fish and Wildlife prior to the implementation of the removal program.

Marine Mammal Protection Act (MMPA): Like ESA, MMPA does not require permits to ensure compliance. The protection afforded marine mammals under the MMPA will also be addressed in the hydraulic project approval that will be issued for the program.

State Environmental Policy Act (SEPA): This document will serve as another source of information as the department makes a determination of the significance of the impacts of the derelict vessel removal program. A SEPA document will be issued prior to the implementation of the program.

Shoreline Management Act (SMA) and Shoreline Master Programs (SMP): The implementation and operation of the derelict vessels removal program is not subject to the permitting requirements of the SMA. Only those projects that meet the following definition of development are required to seek permits.

**RCW 90.58.030(d)** “Development” means a use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to this chapter at any state of water level.

Water Pollution Control Act: The state water pollution control act makes it illegal for anyone to “throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters...” Permits are required only of commercial or industrial operations that discharge pollutants into the waters of the state. Therefore, the program is not required to obtain a permit, but it must take actions to ensure pollution is not discharged as a result of derelict vessels removal. All precautions will be taken to minimize or eliminate the possibility of accidental discharges.

Hydraulics Code: The state hydraulics code states, in RCW 77.55.100, that any project that will “use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state, ... shall, before commencing construction or work thereon and to ensure the proper protection of fish life, secure the approval of the department as to the adequacy of the means proposed for the protection of fish life.” This approval requirement, in the form an hydraulic project approval (HPA), is applicable to the derelict vessel removal program in those cases where a derelict vessel is resting or embedded in the bottom of waters of the state. The program is seeking a programmatic HPA to cover all such work completed under the provisions of the program instead of requiring each removal project proponent to obtain an individual approval.

Solid Waste Management: The new statutes direct that all upland disposals be accomplished in an environmentally sound manner and in accordance with all federal, state, and local laws. Permits are not required and the program will not seek to allow methods of disposal beyond those already allowed.

**Regulatory compliance test results: *Implementation of the derelict vessels removal program:***

- 1) Will not impact receptors not currently covered by a compliance program, and*
- 2) Will not create noncompliance situations for those that are.*

**Risk/Uncertainty Test**

This test attempts to determine the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. In applying this test, the determination of significance on whether risk is increased or decreased is compared to existing conditions. **This means the risk to the human environment from impacts that could occur as a result of removing derelict vessels is compared to the risk to the human environment from the impacts of the vessel remaining in the aquatic environment.** To accomplish this test, the expected severity of the impacts that could occur for each risk-prone situation associated with derelict vessels removal operations will be determined along with its probable frequency. These two elements will then be used to determine the significance of the impact. The following scales will be used to determine severity, frequency and significance..

Severity Scale

Severity	Scale	Consequences
Catastrophic	IV	<u>Human</u> : Loss of ten or more lives and/or large-scale and severe human injury or illness. <u>Environmental</u> : Large-scale damage involving destruction of ecosystems, infrastructure, or property damage with long-term effects, and/or major loss of human life.
Critical	III	<u>Human</u> : Loss of fewer than ten lives and/or small-scale severe human injury or illness. <u>Environmental</u> : Moderate (medium-scale and/or long-term duration) damage to ecosystems infrastructure, and property.
Subcritical	II	<u>Human</u> : Minor human injury or illness. <u>Environmental</u> : Minor (small-scale and short-term) damage to ecosystems, infrastructure, or property.
Negligible	I	<u>Human</u> : No reportable human injury or illness. <u>Environmental</u> : Negligible or no damage to ecosystems, infrastructure, or property.

Frequency Scale

Category	Level	Description	Frequency (f)
Frequent	A	At least once per year	$F > 10^0$
Likely	B	Once in 1 to 10 years	$10^0 > f > 10^{-1}$
Occasional	C	Once in 10 to 100 years	$10^{-1} > f > 10^{-2}$
Unlikely	D	Once in 100 to 1,000 years	$10^{-2} > f > 10^{-3}$
Remote	E	Once in 1,000 to 1,000,000 years	$10^{-3} > f > 10^{-6}$
Incredible	F	Less than once in 1,000,000 years	$10^{-6} > f$

Significance

Severity	Frequency					
	A	B	C	D	E	F
IV	S	S	S	S	M	M

*DRAFT - DVRP Assessment of Significance*

III	S	S	S	M	N	N
II	S	S	M	N	N	N
I	N	N	N	N	N	N

*Legend:*

*S – Usually significant*

*M – Marginally significant or nonsignificant, depending on context*

*N – Usually nonsignificant*

Assessment of Significance

<b>Impact</b>	<b>Severity</b>	<b>Frequency</b>	<b>Significance</b>
Risk of explosion	I	B	N
Risk of fire	I	B	N
Risk of releases to the environment of toxic or hazardous materials	I	A	N
Risk of releases to the environment of petroleum based products (fuels, lubricants, solvents)	I	A	N

Impacts that could occur from the risk-prone situations surrounding the removal of derelict vessels are all in the category of **nonsignificance**. The major reason for this is that the act of removing a derelict vessel does not significantly increase the risks to the environment from the impacts shown above as compared to leaving the derelict vessel in the marine environment. Those vessels in the marine environment that have petroleum products or other hazardous substances on board will eventually discharge those substances into the environment. The removal of these vessels, while increasing the risk slightly due to the movement associated with removal, does not automatically guarantee a discharge will occur.

**Risk/uncertainty test result:** *Impacts that could occur from the risk-prone situations surrounding the removal of derelict vessels are all in the category of nonsignificance.*

## Cumulative Test

### Current Environmental Baseline

Impacts from removing derelict vessels result mainly from discharges to water of petroleum products or other hazardous and toxic materials, and the vessels coming in contact with aquatic bedlands. Because of this, the current environmental baseline analysis will focus on water quality, especially resulting from the introduction of petroleum products, other toxic substances, as well as the condition of aquatic bedlands and habitat.

### 1. Water Quality

*Marine Waters (excerpted from Washington State Marine Water Quality in 1996 and 1997, Washington Department of Ecology, publication no. 98-338, December, 1998)*

Water-quality sensitive areas are typically stations near urbanization and where persistent or seasonal density stratification of the water column exists. Well-mixed areas show less water quality impacts than persistently stratified areas. Rivers or other runoff maintain stratification and also deliver nutrients that support organic production, which may deplete oxygen concentrations at stations where physical mixing of the water column is low. Fecal coliform bacteria (FCB) enter marine waters through runoff. Thus, areas most sensitive to water quality problems are areas with high runoff, low mixing, and anthropogenic inputs of nutrients and sewage. The monitoring data and indicators presented here show this pattern for Washington State marine waters.

Climate also plays a large role in affecting water quality in Washington marine waters. Lower salinity was evident in WY 1996-97 and correlates with higher than normal runoff recorded during 1995-97. This has implications on stratification and water quality. In view of interannual variation due to weather, we find it difficult to assess the impact of humans on water quality. This natural variability highlights the importance of lengthy, consistent time-series databases, and the need to acquire and use historical data.

The Marine Waters Monitoring program assesses conventional water quality as indicated by dissolved oxygen (DO), nutrients, and FCB, but due to funding limitations does not include assessment of chemical contamination, plankton species (e.g., toxic blooms), or changes in flushing characteristics. For the Puget Sound region in general, water quality appeared to be reasonably good; however, there are specific locations where water quality appeared reduced. For the coastal estuaries, the only water quality issue apparent was FCB contamination primarily in Grays Harbor and adjacent to the Willapa River. The representativeness of mid-bay monitoring stations can be questioned and definite undersampling of areas within Puget Sound is acknowledged.

Hypoxic DO concentrations (<3 mg/L) were found at relatively few (5 out of 38) stations. Conditions in South Hood Canal were especially severe, with low DO concentrations (<5 mg/L) evident year-round. Penn Cove and Discovery Bay also exhibited hypoxia. Whether anthropogenic processes are responsible for the severity of these conditions needs evaluation and must be done with an understanding of natural mechanisms for low DO such as oceanic and climatic influences. Low DO was found at 19 other stations, including Holmes Harbor, Bellingham Bay, Budd Inlet, Commencement Bay, and Elliott Bay. Low DO was not found in the coastal estuaries.

High FCB counts were found at 12 out of 38 Puget Sound stations; Commencement Bay and, to a less extent, inner Budd Inlet showed chronic contamination. For the stations assessed in WYs 1996-97, those showing the potential for sensitivity to impacts from eutrophication include: Hood Canal, Penn Cove, Holmes Harbor, Bellingham Bay, Budd Inlet, Elliott Bay, Commencement Bay, Possession Sound, Oakland Bay, East Sound, Saratoga Passage, Discovery Bay, and Drayton Harbor.

*Fresh Waters*

In the Washington Department of Ecology's report, *Conditions of Fresh Waters of Washington for the Year 2000*, the majority of the fresh waters located in streams across Washington were categorized as "fair", indicating their condition is of moderate concern, or "poor", indicating waters of the highest concern. The condition of fresh water in lakes was not as troublesome, with the majority of waters classified as "good" or "fair".

Ecoregion	Stream Quality			Lake Quality		
	Good	Fair	Poor	Good	Fair	Poor
Coast Range	10%	60%	30%	100%	-	-
Puget Lowlands	27%	23%	50%	52%	39%	9%
Cascades	17%	33%	50%	100%	-	-
Columbia Basin	24%	45%	31%	-	67%	33%
Northern Rockies	-	27%	73%	86%	14%	-
East Cascades Foothills	40%	30%	30%	-	-	-
Willamette Valley	100%	-	-	-	-	-

Source: Conditions of Fresh Waters of Washington State for the Year 2000, publication no. 01-03-025, Washington Department of Ecology, October, 2001.

**2. Spills in Puget Sound**

*Petroleum Spills (excerpted from Puget Sound's Health, 2002, published by the Puget Sound Water Quality Action Team).*

Puget Sound is one the nation's leading petroleum refining centers. Approximately 15 billion gallons of crude oil and refined petroleum products are transported through the Sound each year. In addition, large quantities of oil travel through the region's pipelines. In 2000, about 39 large commercial cargo ships, tankers and oil barges moved through the Sound each day. Marine terminals, where oil is transferred between ships and land, and highway transportation by tanker trucks also contribute to the risk of major spills. Oil spills introduce contaminants into the environment at toxic levels and can immediately harm marine fish larvae, invertebrates, birds and marine mammals.

*Major spills (10,000 gallons and over)*

The volume and number of major spills in Puget Sound has remained relatively low since 1992. There were no major spills in 2000-01. Between 1985 and 2001, 16 major spills from facilities (such as refineries, depots), pipelines, vessels and barges released more than 2.2 million gallons of oil. Some of this was contained, but much of this oil reached the waters and land of the Puget Sound basin. Six spills in 1990 and 1991 released more than one half of this volume. In the last five years, only one major spill has occurred - the Olympic Pipeline spill in Bellingham in 1999.

Since 1985, shore-based facilities accounted for 52 percent of the oil spilled in major incidents (10,000 or more gallons). The remaining 48 percent of oil released in major spills was relatively

evenly split between spills from pipelines (26 percent) and vessels and barges (23 percent). Heavy fuel oil and crude oil are the materials most commonly spilled in major incidents.

*Serious spills (25 to 10,000 gallons)*

From 1993 to 2001, the state Department of Ecology recorded 191 spills in the Puget Sound basin, where 25 to 10,000 gallons reached surface waters. Approximately 73,400 gallons of oil entered Puget Sound waters from those 191 serious spills. The annual numbers appear to be rising slightly, although the total volume remains relatively steady. Vessels were by far the greatest source of spills of 25 to 10,000 gallons. A relatively small number of the spills contributed most of the oil released in spills of 25 to 10,000 gallons.

The volume of major spills refers to the total volume spilled; in most cases, not all of the oil spilled reached surface waters.

### **3. Aquatic Bedlands**

*Nearshore Assessment*

Because the vast majority of derelict vessels occur very close to shore, the best assessments of the affected environment are those dealing with the nearshore environment.

*Nearshore definition*

There are many different definitions of nearshore. The term 'nearshore' has evolved to encompass a rather large area, not just those areas that are adjacent to or "near" the shore line. Most commonly it refers to the backshore, intertidal and shallow subtidal areas of shoreline. In Washington for example, the Shoreline Management Act defines the upland edge of this area to be 200 feet behind the shoreline. Many groups also consider the nearshore to go fairly deep beyond the intertidal zone. For example, the recent King County Nearshore Assessment defined the nearshore zone to go as deep as -60 ft. There exists much debate over how far up a river the nearshore extends, one common approach, is to base the extent on salinity.

*Impacts to nearshore environment (from Puget Sound's Nearshore Habitat fact sheet, Puget Sound Water Quality Action Team, August 2000)*

Human development has already taken a heavy toll on Puget Sound nearshore habitats. An estimated 58 percent of the original coastal wetlands are gone. Dikes, port development, and commercial and residential building have all impacted these critical areas. Many sand, gravel and cobble shorelines have been dredged, paved or altered by bulkheads. In Seattle and Tacoma, areas which were once expansive intertidal marsh, the losses are almost 100 percent. Despite our heightened awareness, there is a continuing alteration and loss of nearshore habitat, incrementally from one residence to the next.

The declining condition of Puget Sound's wetlands and other marine and freshwater habitat is reflected in the listing of two species of salmon in Puget Sound as threatened under the Endangered Species Act. Human activities like shoreline armoring, restriction of tidal flow, over-water structures and reduction in size and connectivity of natural habitats continue to impede natural function.

### **4. Future Actions**

In determining the future actions to consider in this analysis, only those actions with impacts similar to those possible from derelict vessels will be included. In a simplified form, impacts from removing derelict

vessels result from discharges to water of petroleum products or other hazardous and toxic materials, and the vessels coming in contact with aquatic bedlands. Therefore, only those actions with similar impacts to water quality and aquatic bedlands will be included.

Actions with water quality impacts:

- Boating: recreational, commercial, industrial
- Spills and releases: outfalls, oil spills, contaminated runoff
- Logging
- Contaminated sediments

Actions with bedlands impacts:

- Shoreline modifications: docks, piers, floats, armoring
- Fishing and shellfish harvesting
- Navigational channel maintenance
- Logging: increased sediment transport
- Contaminated sediment disposal

### **Incremental impact of proposed action**

Derelict vessel removal operations would not be required or undertaken if a vessel was not first abandoned or declared derelict. This requires an analysis of baseline environmental conditions to include the abandoned or derelict vessels as part of the baseline. Any impacts resulting from the abandoned or derelict vessel remaining in the aquatic environment would therefore also be considered as part of the environmental baseline. The incremental impacts of derelict vessel removal operations would then be compared to the baseline, which includes the impacts from vessels remaining in the aquatic environment.

At the heart of the derelict vessel removal program is the desire to act proactively. The legislature was clear in this intent when it set the priorities for the use of the derelict vessel removal account for vessels in danger of sinking or breaking up. Clearly the desire was for the state to be able to deal with abandoned or derelict vessels before they are able to severely impact the aquatic environment.

Based on the assumption that derelict vessels remaining in the aquatic environment are a part of the environmental baseline, there are no incremental impacts from removal operations. In the event the removal operations caused a spill or release of toxic or hazardous substances, the spill or release would not be of a greater volume than what would have occurred had the vessels been left in the aquatic environment. The same holds for impacts to aquatic bedlands. Impacts from removal operations would be more acute in nature than those from vessels left in the aquatic environment because the spill, release or impacts to aquatic bedlands would occur over a much shorter time period.

### **Cumulative Impacts**

Impacts from derelict vessels removal operations would not cause individually nonsignificant impacts to become cumulative significant impacts.

**Cumulative test results:** *Impacts from derelict vessel removal operations will not cause individually nonsignificant impacts to become cumulatively significant impacts.*

### **Precedence Test**

The goal of this test is to determine the degree to which the action, in this case implementing the derelict vessel removal program, might establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

1. The first part of this test requires that implementing the derelict vessel removal program be considered together with reasonably foreseeable future actions to see if a precedent will be established.

*Analysis:*

Implementing the derelict vessel removal program will not establish a precedent for future actions with significant impacts to the environment. No reasonably foreseeable future actions could be based on this decision as a precedent.

2. The second part of this test seeks to determine if implementing the derelict vessel removal program represents a decision in principle regarding future decisions.

*Analysis:*

The decision to implement the derelict vessel program is not a decision of the type that could represent a decision in principle. No reasonably foreseeable future actions could be initiated, continued, or discontinued based on this decision.

<p><b>Precedence test results:</b> <i>Implementing the derelict vessel removal program will not establish a precedent or create a decision in principle.</i></p>
--

### Controversy Test

The controversy test is used to determine the degree to which the effects on the quality of the human environment resulting from the implementation of the derelict vessels removal program are likely to be highly controversial. In this analysis, an action will be considered controversial if a dispute exists regarding the size, nature, or effect of the action rather than the existence of opposition to the action.

*Analysis:*

The removal of derelict vessels from the aquatic environment is not likely to be controversial on any scale. The problem of derelict or abandoned vessels has been the subject of much debate in the recent past, especially in regards to who should be effecting the removals. Local governments, port operator, and marina owners have struggled with legal as well as financial roadblocks when attempting to deal with these problem vessels. As legal battles raged on and the search for financial support turned up nothing, the vessels continued to attack the environment.

It is the impacts these vessels cause to things other than the aquatic environment that assure the action will not be controversial. Economic and aesthetic impacts are just two of the most common. The legislature noted that in RCW 79.100 that “these vessels are public nuisances and safety hazards as they often pose hazards to navigation, detract from the aesthetics of Washington's waterways, and threaten the environment with the potential release of hazardous materials.” They went on to state that “the costs associated with the removal of derelict vessels becomes a burden on public entities and the taxpaying public.”

The program designed by the legislature:

- Does not set up economic advantages for any particular area of the state
- Does not favor one group of stakeholders over another (i.e. environmentalists over developers)
- Does not distinguish between state and local governments

Given these findings and the support for the program shown through various media sources, the program is not likely to be highly controversial.

**Controversy test results:** *Effects on the quality of the human environment resulting from the derelict vessel removal program are not likely to be highly controversial.*